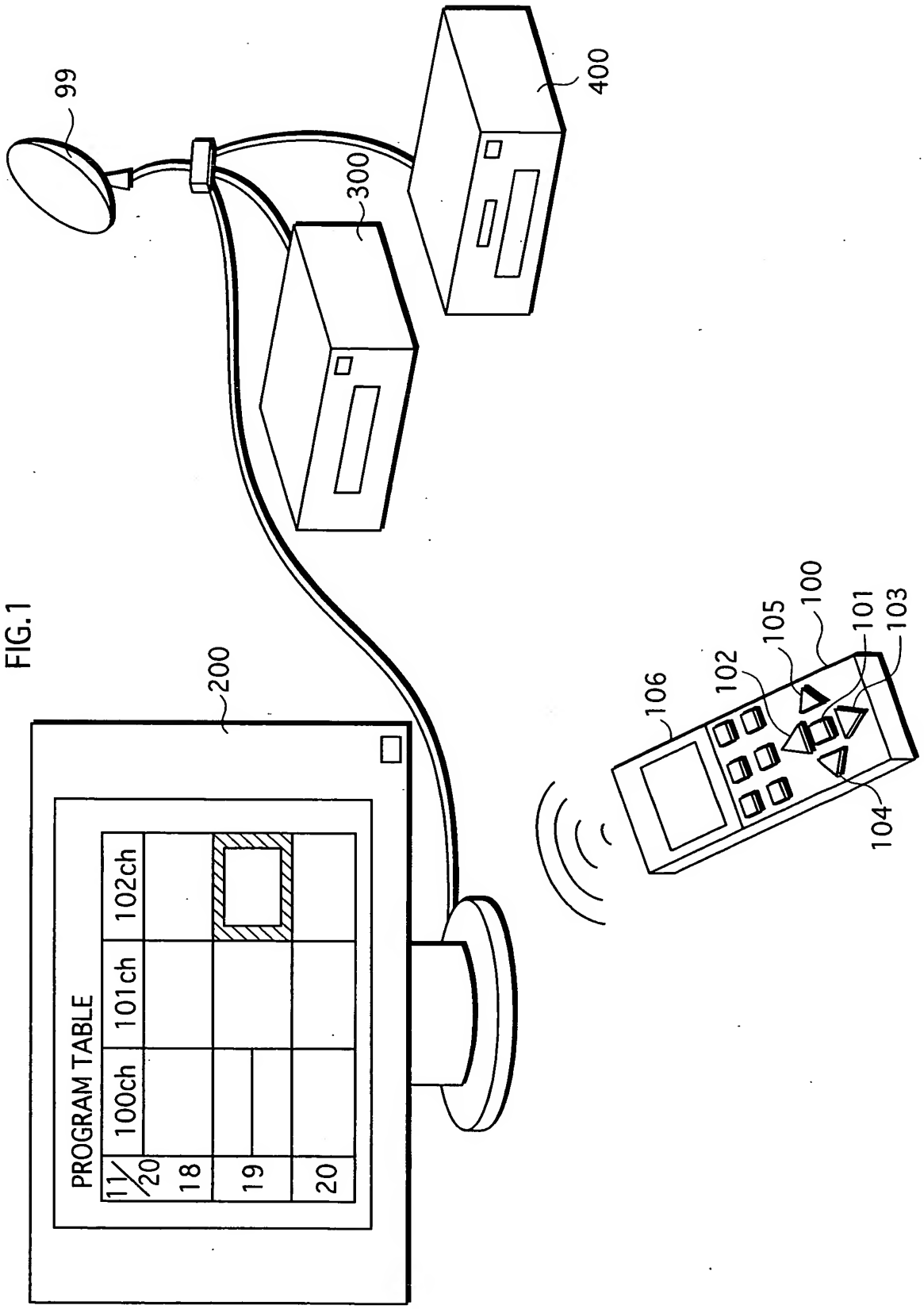

99
400
300
200
100
101
103
105
102
106
104
PROGRAM TABLE
100ch
101ch
102ch
11/20
18
19
20

FIG.1

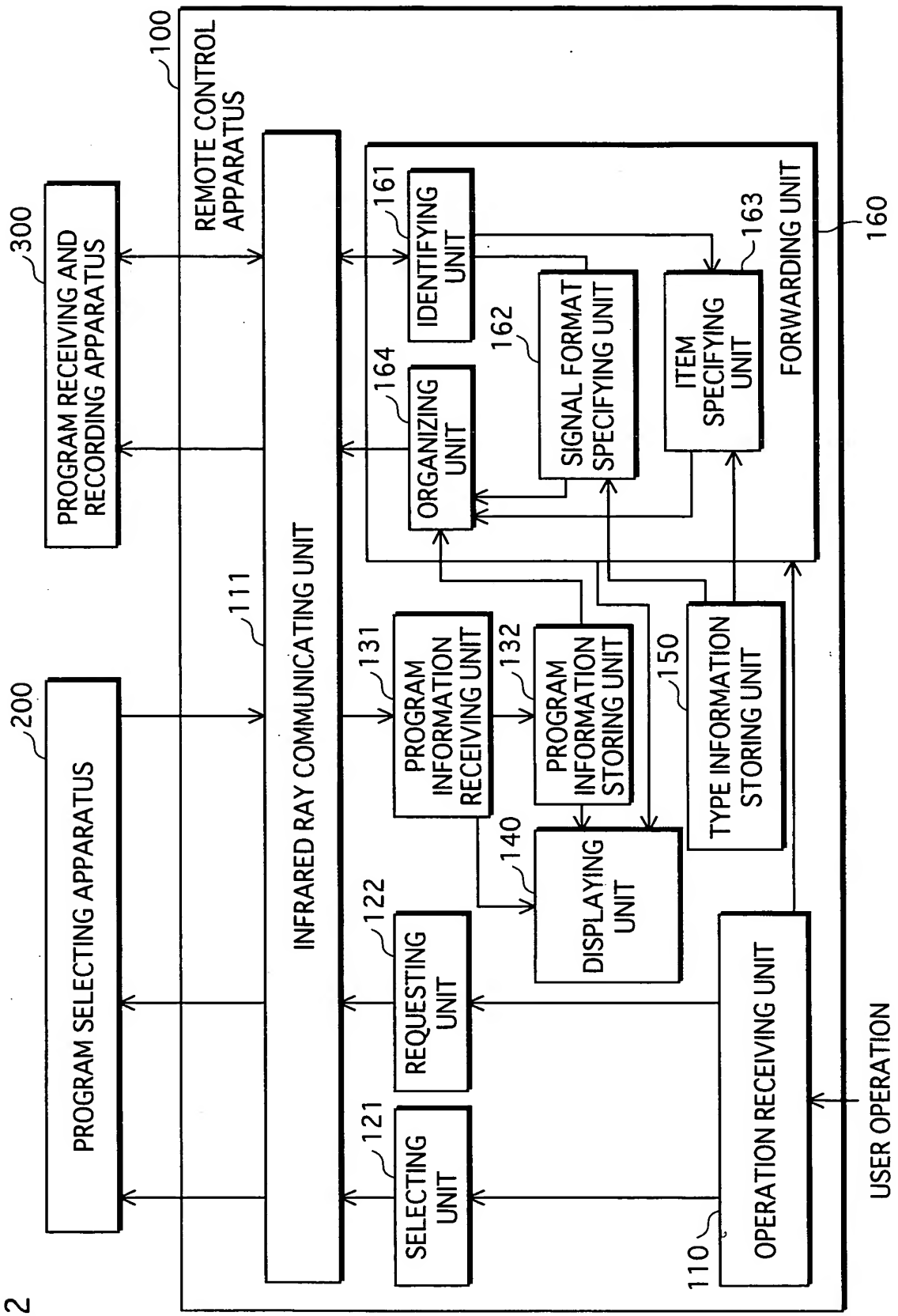

100
REMOTE CONTROL APPARATUS
300
PROGRAM RECEIVING AND RECORDING APPARATUS
200
PROGRAM SELECTING APPARATUS
111
INFRARED RAY COMMUNICATING UNIT
121
SELECTING UNIT
122
REQUESTING UNIT
131
PROGRAM INFORMATION RECEIVING UNIT
132
PROGRAM INFORMATION STORING UNIT
140
DISPLAYING UNIT
150
TYPE INFORMATION STORING UNIT
110
OPERATION RECEIVING UNIT
USER OPERATION
160
FORWARDING UNIT
161
IDENTIFYING UNIT
162
SIGNAL FORMAT SPECIFYING UNIT
163
ITEM SPECIFYING UNIT
164
ORGANIZING UNIT

FIG.2

FIG.3

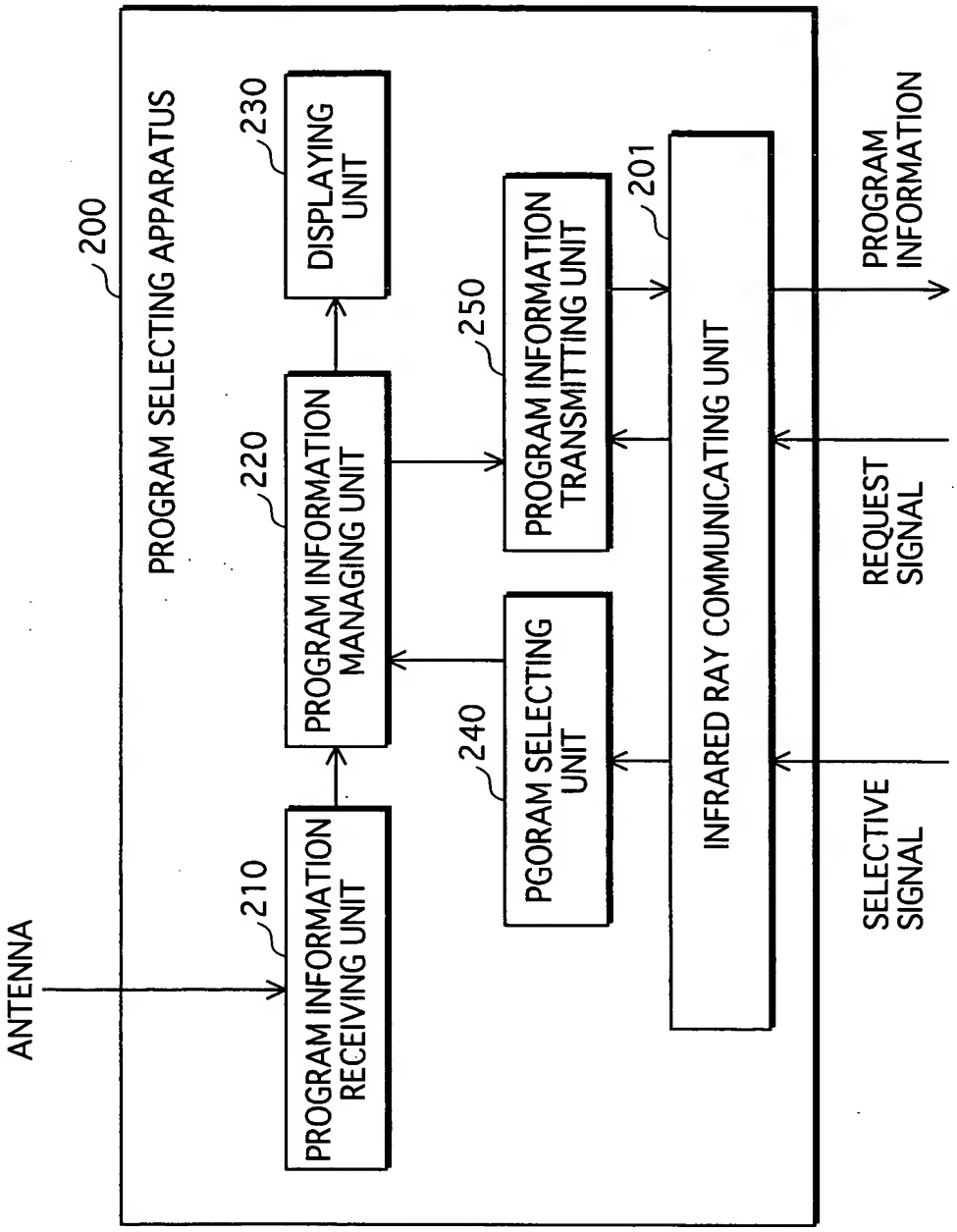

200
PROGRAM SELECTING APPARATUS
ANTENNA
210
PROGRAM INFORMATION RECEIVING UNIT
220
PROGRAM INFORMATION MANAGING UNIT
230
DISPLAYING UNIT
240
PGORAM SELECTING UNIT
250
PROGRAM INFORMATION TRANSMITTING UNIT
201
INFRARED RAY COMMUNICATING UNIT
PROGRAM INFORMATION
REQUEST SIGNAL
SELECTIVE SIGNAL

FIG.4

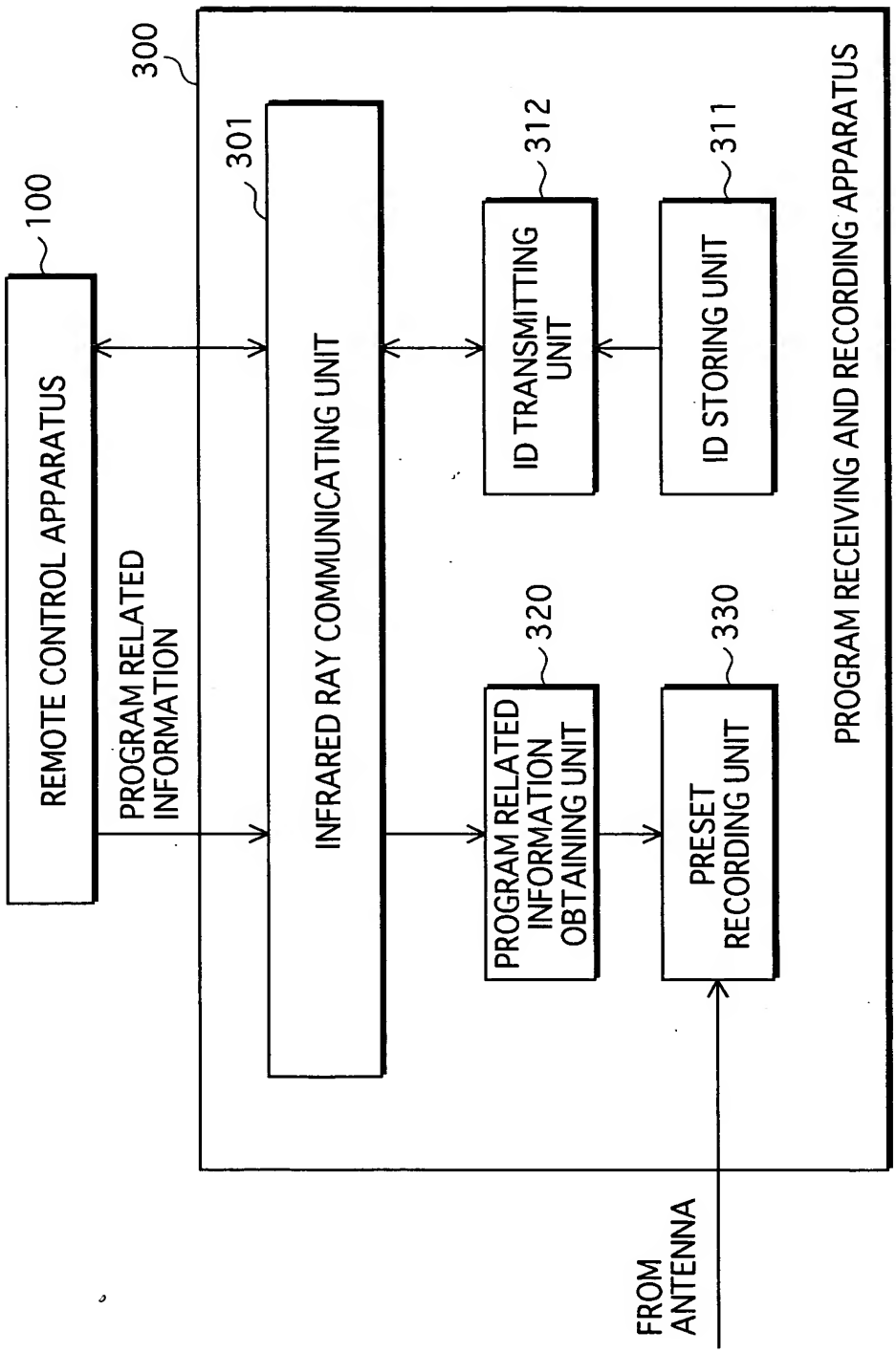

300
100
REMOTE CONTROL APPARATUS
PROGRAM RELATED INFORMATION
301
INFRARED RAY COMMUNICATING UNIT
312
ID TRANSMITTING UNIT
311
ID STORING UNIT
320
PROGRAM RELATED INFORMATION OBTAINING UNIT
330
PRESET RECORDING UNIT
PROGRAM RECEIVING AND RECORDING APPARATUS
FROM ANTENNA

FIG.5

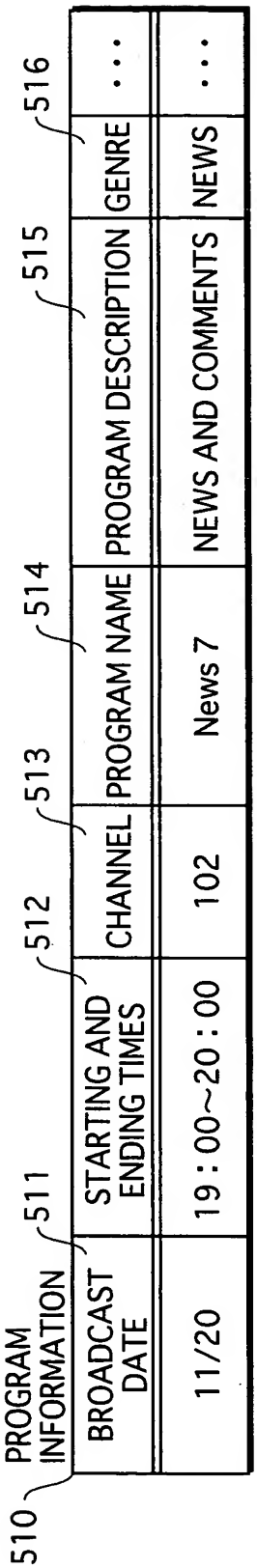

510
PROGRAM INFORMATION
511
512
513
514
515
516
BROADCAST DATE
STARTING AND ENDING TIMES
CHANNEL
PROGRAM NAME
PROGRAM DESCRIPTION
GENRE
11/20
19:00~20:00
102
News 7
NEWS AND COMMENTS
NEWS
...
...

FIG.6

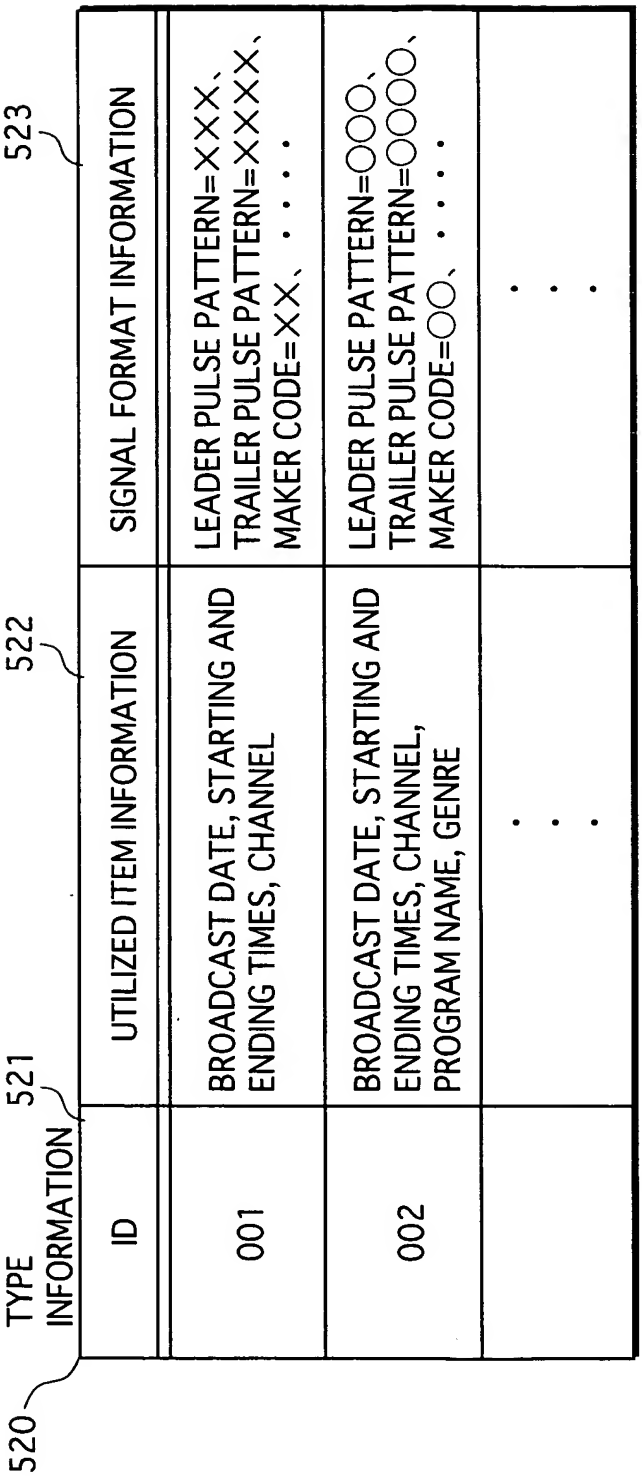

520
TYPE INFORMATION
521
522
523
ID
UTILIZED ITEM INFORMATION
SIGNAL FORMAT INFORMATION
001
BROADCAST DATE, STARTING AND ENDING TIMES, CHANNEL
LEADER PULSE PATTERN=XXX、TRAILER PULSE PATTERN=XXXX、MAKER CODE=XX、・・・・
002
BROADCAST DATE, STARTING AND ENDING TIMES, CHANNEL, PROGRAM NAME, GENRE
LEADER PULSE PATTERN=OOO、TRAILER PULSE PATTERN=OOOO、MAKER CODE=OO、・・・・

FIG.7

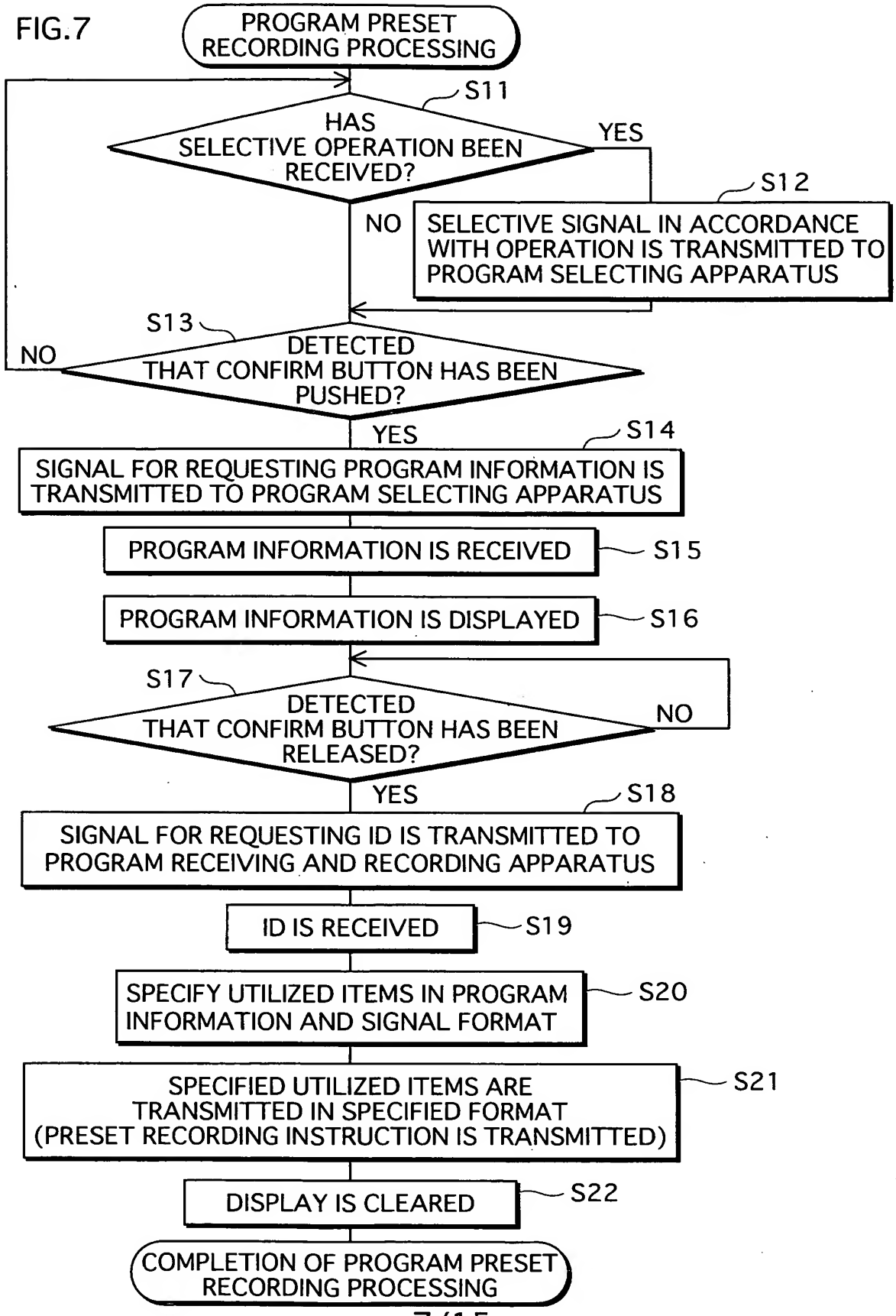

PROGRAM PRESET RECORDING PROCESSING
S11
HAS SELECTIVE OPERATION BEEN RECEIVED?
YES
NO
S12
SELECTIVE SIGNAL IN ACCORDANCE WITH OPERATION IS TRANSMITTED TO PROGRAM SELECTING APPARATUS
S13
DETECTED THAT CONFIRM BUTTON HAS BEEN PUSHED?
NO
YES
S14
SIGNAL FOR REQUESTING PROGRAM INFORMATION IS TRANSMITTED TO PROGRAM SELECTING APPARATUS
PROGRAM INFORMATION IS RECEIVED
S15
PROGRAM INFORMATION IS DISPLAYED
S16
S17
DETECTED THAT CONFIRM BUTTON HAS BEEN RELEASED?
NO
YES
S18
SIGNAL FOR REQUESTING ID IS TRANSMITTED TO PROGRAM RECEIVING AND RECORDING APPARATUS
ID IS RECEIVED
S19
SPECIFY UTILIZED ITEMS IN PROGRAM INFORMATION AND SIGNAL FORMAT
S20
SPECIFIED UTILIZED ITEMS ARE TRANSMITTED IN SPECIFIED FORMAT (PRESET RECORDING INSTRUCTION IS TRANSMITTED)
S21
DISPLAY IS CLEARED
S22
COMPLETION OF PROGRAM PRESET RECORDING PROCESSING

FIG.8

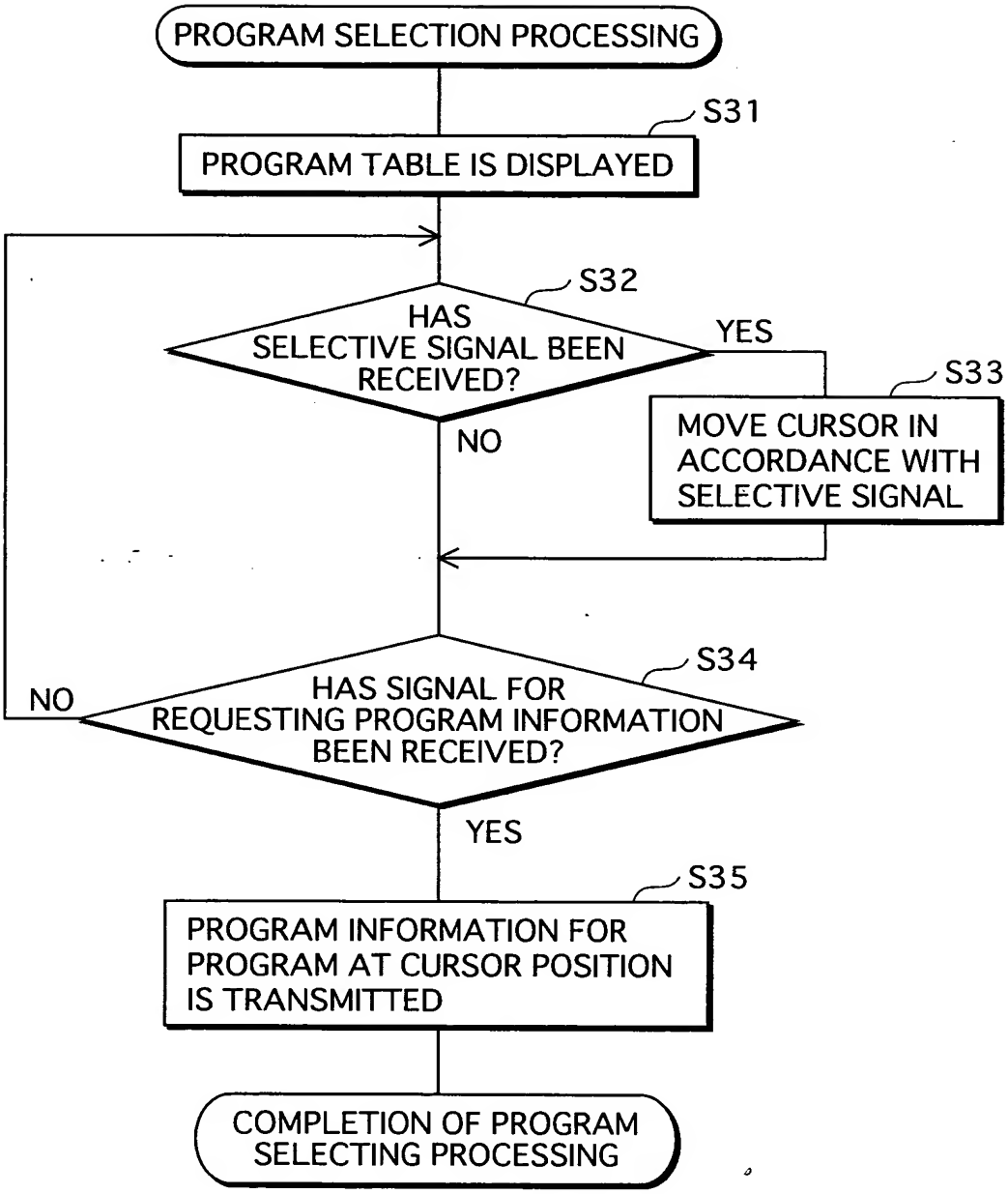

PROGRAM SELECTION PROCESSING
S31
PROGRAM TABLE IS DISPLAYED
S32
HAS SELECTIVE SIGNAL BEEN RECEIVED?
YES
NO
S33
MOVE CURSOR IN ACCORDANCE WITH SELECTIVE SIGNAL
S34
HAS SIGNAL FOR REQUESTING PROGRAM INFORMATION BEEN RECEIVED?
NO
YES
S35
PROGRAM INFORMATION FOR PROGRAM AT CURSOR POSITION IS TRANSMITTED
COMPLETION OF PROGRAM SELECTING PROCESSING

FIG.9

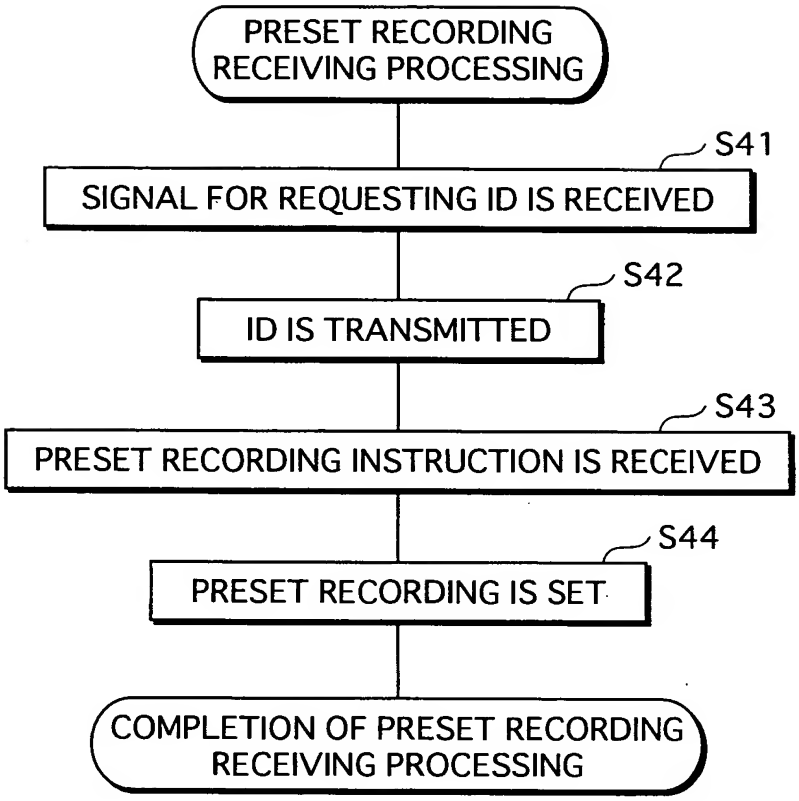
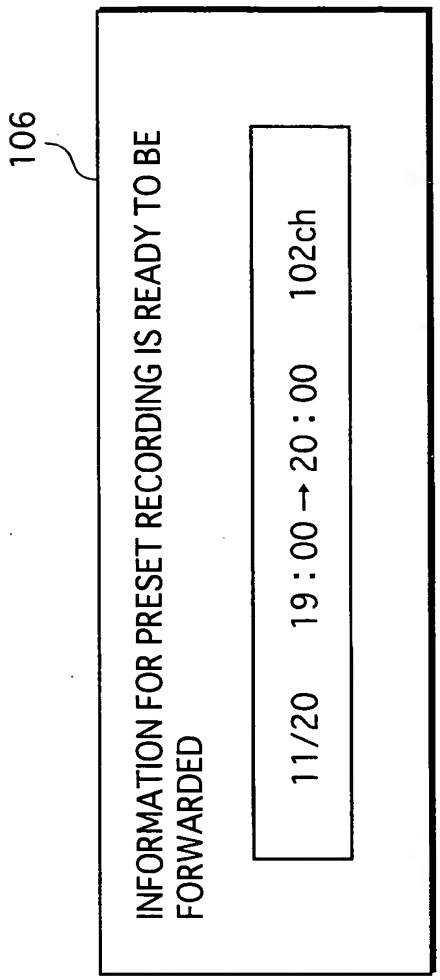

PRESET RECORDING RECEIVING PROCESSING
S41
SIGNAL FOR REQUESTING ID IS RECEIVED
S42
ID IS TRANSMITTED
S43
PRESET RECORDING INSTRUCTION IS RECEIVED
S44
PRESET RECORDING IS SET
COMPLETION OF PRESET RECORDING RECEIVING PROCESSING

FIG.10


106
INFORMATION FOR PRESET RECORDING IS READY TO BE FORWARDED
11/20 19 : 00 → 20 : 00 102ch

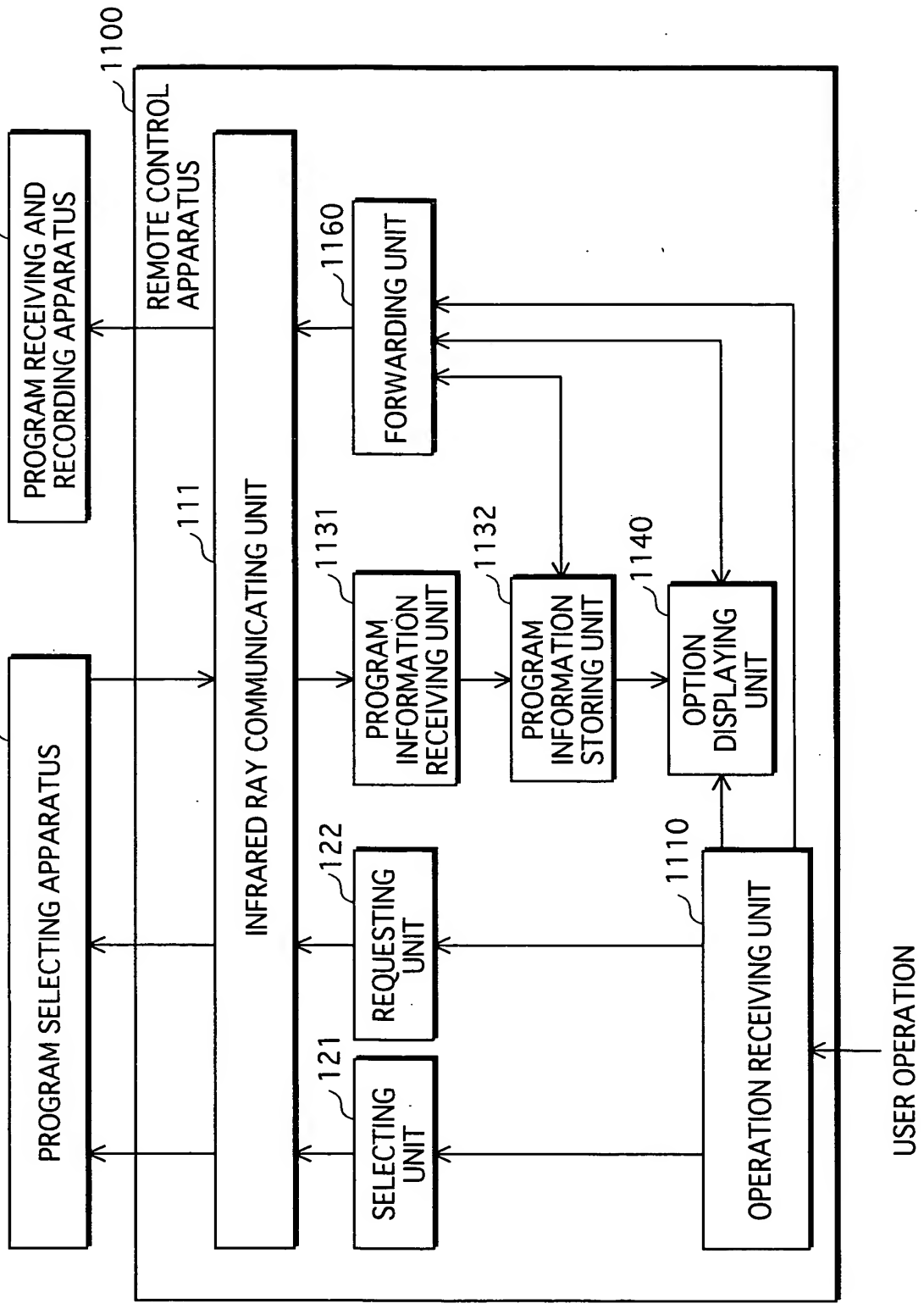

1100
REMOTE CONTROL APPARATUS
1300
PROGRAM RECEIVING AND RECORDING APPARATUS
1200
PROGRAM SELECTING APPARATUS
111
INFRARED RAY COMMUNICATING UNIT
1160
FORWARDING UNIT
1131
PROGRAM INFORMATION RECEIVING UNIT
1132
PROGRAM INFORMATION STORING UNIT
1140
OPTION DISPLAYING UNIT
122
REQUESTING UNIT
121
SELECTING UNIT
1110
OPERATION RECEIVING UNIT
USER OPERATION

FIG.11

FIG.12

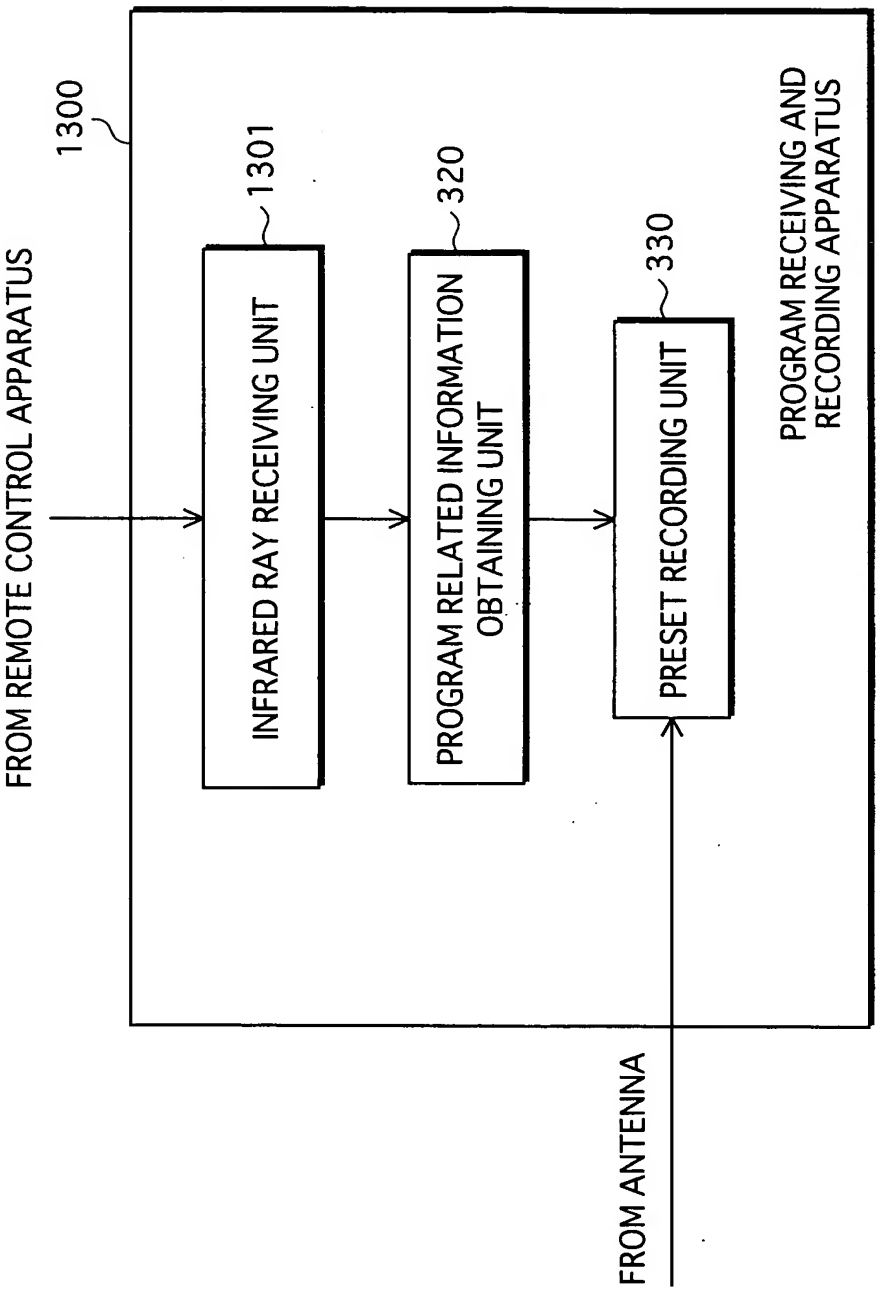

1300
FROM REMOTE CONTROL APPARATUS
1301
INFRARED RAY RECEIVING UNIT
320
PROGRAM RELATED INFORMATION OBTAINING UNIT
330
PRESET RECORDING UNIT
PROGRAM RECEIVING AND RECORDING APPARATUS
FROM ANTENNA

FIG.13

1510 PROGRAM INFORMATION

BROADCAST DATE	STARTING AND ENDING TIMES	CHANNEL	PROGRAM NAME	PROGRAM DESCRIPTION	GENRE	...
11/20	19 : 00~20 : 00	102	News 7	NEWS AND COMMENTS	NEWS	...
11/20	19 : 00~20 : 00	102	TV SERIAL MYSTERY STORIES	THE 4TH EPISODE	DRAMA	...
11/20	22 : 00~23 : 00	101	20 BEST HITS OF THE WEEK	PROMOTION FILM AND LIVE PERFORMANCE	MUSIC	...
⋮	⋮	⋮	⋮	⋮	⋮	⋮

10/530272

FIG.14

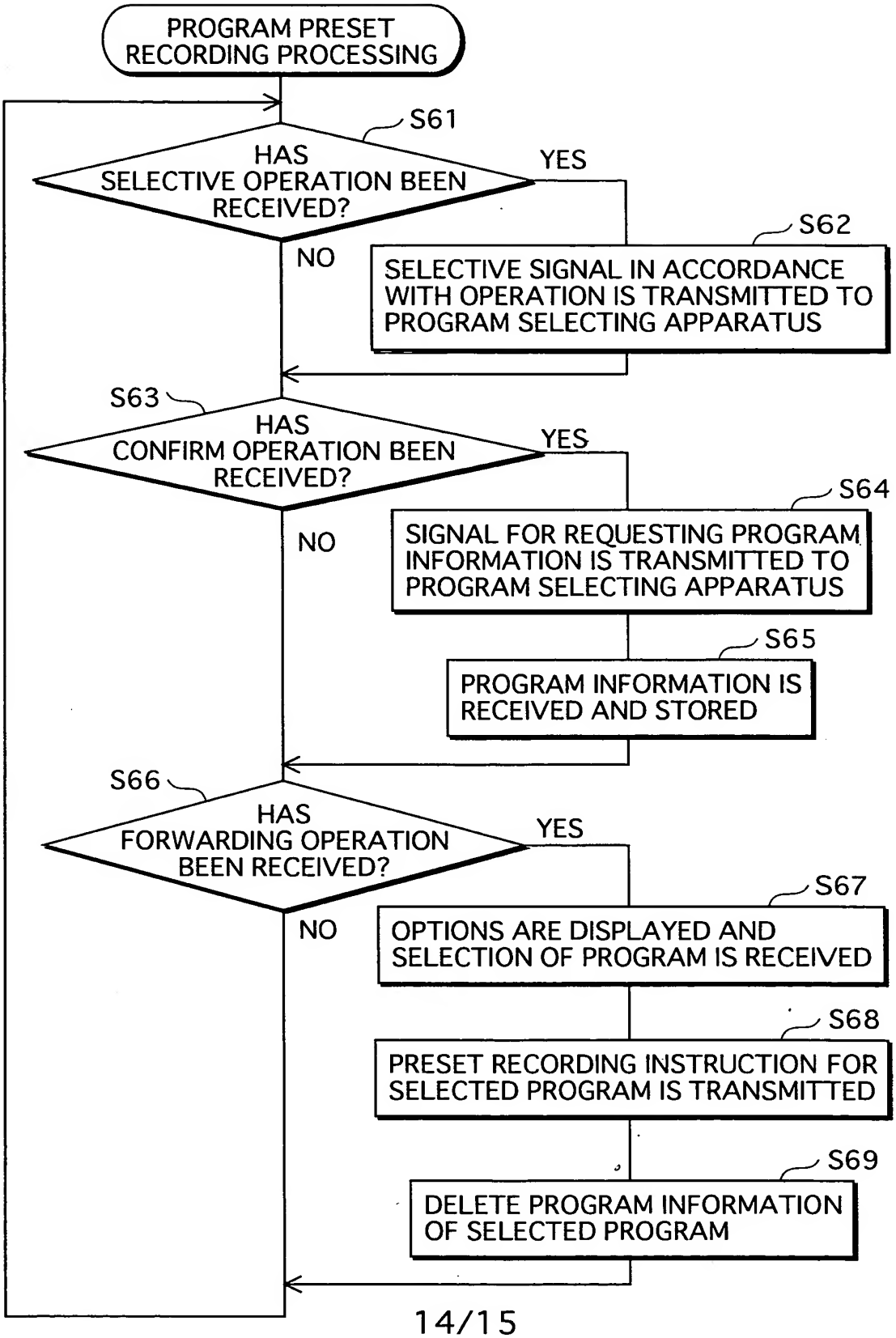
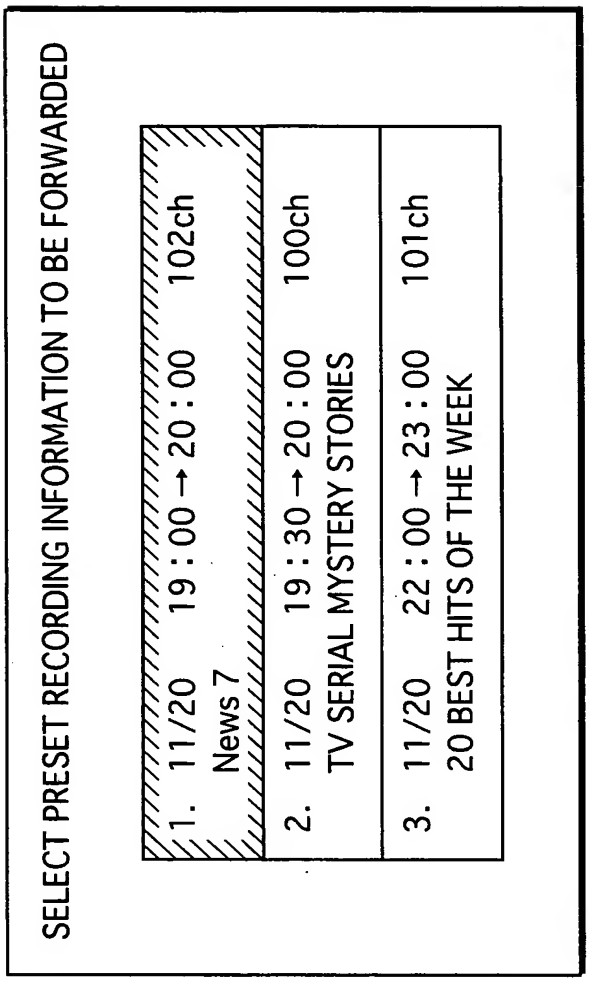

PROGRAM PRESET RECORDING PROCESSING
S61
HAS SELECTIVE OPERATION BEEN RECEIVED?
YES
NO
S62
SELECTIVE SIGNAL IN ACCORDANCE WITH OPERATION IS TRANSMITTED TO PROGRAM SELECTING APPARATUS
S63
HAS CONFIRM OPERATION BEEN RECEIVED?
YES
NO
S64
SIGNAL FOR REQUESTING PROGRAM INFORMATION IS TRANSMITTED TO PROGRAM SELECTING APPARATUS
S65
PROGRAM INFORMATION IS RECEIVED AND STORED
S66
HAS FORWARDING OPERATION BEEN RECEIVED?
YES
NO
S67
OPTIONS ARE DISPLAYED AND SELECTION OF PROGRAM IS RECEIVED
S68
PRESET RECORDING INSTRUCTION FOR SELECTED PROGRAM IS TRANSMITTED
S69
DELETE PROGRAM INFORMATION OF SELECTED PROGRAM

FIG.15


SELECT PRESET RECORDING INFORMATION TO BE FORWARDED
1. 11/20 19 : 00 → 20 : 00 102ch
News 7
2. 11/20 19 : 30 → 20 : 00 100ch
TV SERIAL MYSTERY STORIES
3. 11/20 22 : 00 → 23 : 00 101ch
20 BEST HITS OF THE WEEK